

which was subsequent to the mailing of the Office Action. Accordingly, claims 2-23 are currently pending in the present application, and are believed to be in condition for allowance at least for the reasons solicited hereinbelow.

Initially, the Examiner objects to the title of invention as non-descriptive. By the above amendment, the title of invention is deleted in its entirety and replaced with one which is clearly indicative of the invention to which the claims are directed. In particular, the title of the invention now recites "A SEMICONDUCTOR DEVICE HAVING CHANNEL FORMATION REGION COMPRISING SILICON AND CONTAINING A GROUP IV ELEMENT." Accordingly, reconsideration and withdrawal of the rejection is earnestly solicited.

The Examiner objects to the use of the term "foreigners" on page 4, line 19 of the specification. By the above amendment, the recitation "using foreigners" is replaced with the recitation "using such a metal." Accordingly, reconsideration and withdrawal of the rejection is earnestly solicited.

A. Statutory Double Patenting Rejection

The Examiner rejects claim 1 under 35 U.S.C. §101 as claiming the same invention as that of claims 10, 14 and 15 of prior U.S. Patent No. 6,160,279 to *Zhang et al.* (Hereinafter "*Zhang*"). Claim 1 is canceled by the actions presented by the Preliminary Amendment of October 15, 2001, thereby rendering any response to the rejection moot. Applicant respectfully submits, however, that claims 2-23 define subject matter that is not coextensive in scope to the claims set forth in the *Zhang* patent.

For example, the claimed invention is directed generally to a semiconductor device comprising a source region and a drain region, a channel formation region provided between the source region and the drain region and provided in a crystalline

semiconductor comprising silicon, the channel formation region containing an element selected from group IV elements other than silicon.

In accordance with claims 2, 6 and 7 of the claimed invention, the channel formation region comprises a plurality of crystals provided in the crystalline semiconductor and extending in a same direction. In accordance with claim 5 of the claimed invention, the channel formation region comprises a plurality of crystals provided in the crystalline semiconductor and extending in a direction connecting the source region and the drain region. In accordance with claims 3 and 4 of the claimed invention, the channel formation region comprises a plurality of crystals provided in the crystalline semiconductor in parallel with a plane in parallel with which the source region and the drain region and the channel formation region are arranged.

Applicant respectfully submits that the claims set forth in the *Zhang* patent are not the same as those which are defined in the claimed invention. Accordingly, reconsideration and withdrawal of the rejection is earnestly solicited.

B. 35 U.S.C. §102 Rejection

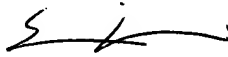
The Examiner further rejects claim 1 under 35 U.S.C. §102(b) as anticipated by EP Patent No. 0 390 608 A2 to *Yonehara*. Claim 1 is canceled by the actions presented by the Preliminary Amendment of October 15, 2001, thereby rendering any response to the rejection moot.

Applicant respectfully submits, however, that claims 2-23 define subject matter that is clearly patentably distinct from the *Yonehara* patent. In particular, the *Yonehara* patent fails to expressly teach or inherently disclose a semiconductor device comprising a channel formation region comprising a plurality of crystals provided in the crystalline semiconductor and extending in a same direction, a semiconductor device comprising a channel formation region comprising a plurality of crystals provided in the crystalline

semiconductor and extending in a direction connecting the source region and the drain region, or a semiconductor device comprising a channel formation region comprising a plurality of crystals provided in the crystalline semiconductor in parallel with a plane in parallel with which the source region and the drain region and the channel formation region are arranged. Applicant respectfully requests reconsideration and withdrawal of the rejection.

Applicant respectfully contends that the claims are in proper condition for allowance. Should the Examiner believe that any further communication would be desirable to place this application in better condition for allowance, the Examiner is invited to contact Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,



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Marked-up copy of substitute paragraph

--Accordingly, it is expected that a crystallization temperature can be lowered by introducing crystal nuclei more positively. In order to confirm an effect of introducing crystal nuclei, the following experiment was tried. That is, a thin film of a different metal in a very small amount was beforehand formed on a substrate, then an amorphous silicon thin film was formed on the different metal film, and then heat-crystallization was conducted on the amorphous silicon thin film. As a result, it was [proved] proven that the crystallization temperature was lowered when thin films of some different kinds of metal were beforehand formed on the substrate, and it was expected that crystal growth using [foreigners] such a metal as crystal nuclei had conducted. Accordingly, a more detailed mechanism for plural kinds of impurity metal which could lower the crystallization temperature was studied.--